California's Living Marine Resources:
A Status Report

The Resources Agency
The California Department of Fish and Game

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Acknowledgements

The editors wish to acknowledge important contributions from many colleagues. In DFG, Joann Eres and her staff compiled a huge amount of landings data for the tables and graphs, while Nancy Wright and Chad King created the maps. Chamois Andersen and the Conservation Education staff assisted with the editing. Carrie Wilson and Paul Gregory searched out and supplied many of the photographs. Bernice Hammer and Susan Ashcraft aided in organizing and producing tables and graphs. Kristen Sortais from the California Sea Grant Program compiled the glossary and organized the photographs in the document. The ever-enthusiastic Tom Jurach of the UC Davis Repro Graphics Department was the lead person for publication design and layout.

This publication fulfills the Marine Life Management Act of 1998 requirement for a status of the fisheries report. Primary funding for this project was provided by the State of California to the Marine Region of the California Department of Fish and Game. Additional support was supplied by the California Marine Life Management Project with funding from the David and Lucile Packard Foundation and the National Sea Grant College Program of the Department of Commerce, National Oceanic and Atmospheric Administration, under grant number NA06RG0142, project AE/1 through the California Sea Grant College Program.

Library of Congress Control Number: 2001098707

ISBN 1-879906-57-0

University of California

Agriculture and Natural Resources

Publication SG01-11

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Yellowtail Rockfish

History of the Fishery

Yellowtail rockfish (*Sebastes flavidus*), frequently called "greenies" by commercial fishermen, are a major component of the groundfish fishery. Over the period from 1983 to 1998, yellowtail rockfish accounted for 13 percent of all rockfish landed on the U.S. West Coast and six percent of all groundfish, exclusive of Pacific whiting. Among the rockfish/rockcod, only widow rockfish have supported a greater West Coast harvest. The center of yellowtail rockfish population abundance is off the states of Oregon and Washington, with lower abundance off California. Even so, from 1980 to 1998, the total combined landings among all yellowtail rockfish fisheries in the state have ranged from 370 to 2,460 tons per year, with an average catch over that period of 1,080 tons per year. Catches exceeded 2,200 tons per year during 1982 and 1983, declined to 550 tons per year through 1988, rose to levels above 1,100 tons per year from 1989 through 1992, and then declined to about 550 tons per year thereafter. After bocaccio and blue rockfish, yellowtail rockfish was the third most abundant rockfish taken in the California recreational fishery for several years.

Over the last two decades, the recreational fishery has been responsible for a substantial portion of the yellowtail rockfish catch in California, accounting for over one-third of all landings. Among the commercial fisheries, trawl fishing has produced the greatest catch (28 percent of total landings), but hook-and-line and setnet fisheries have also been important, accounting for 24 percent and 13 percent, respectively. Thus, yellowtail rockfish have been harvested in significant quantities by all groundfish fisheries in the state, perhaps more so than any other species, with the exception of bocaccio.

The northern distribution of the yellowtail rockfish stock is distinctly evident in the commercial landings statistics compiled from each port of landing within the state. Of the combined "greenie" catch, 94 percent has been taken from Monterey north. Similarly, in the recreational fishery 86 percent of the catch has come from northern California waters. There are, however, differences in the types of commercial fishing conducted at each port. For example, from Fort Bragg north, trawling has been the primary method of harvesting yellowtail. In contrast, commercial fisheries in San Francisco, Bodega Bay, and Monterey have relied more heavily on hook-and-line and setnet fixed gear to capture this species. In recent years, the setnet fishery has declined to negligible quantities, but from 1983 to1986 large quantities of yellowtail rockfish were taken in the gill net fishery that operated between Monterey and San Francisco.

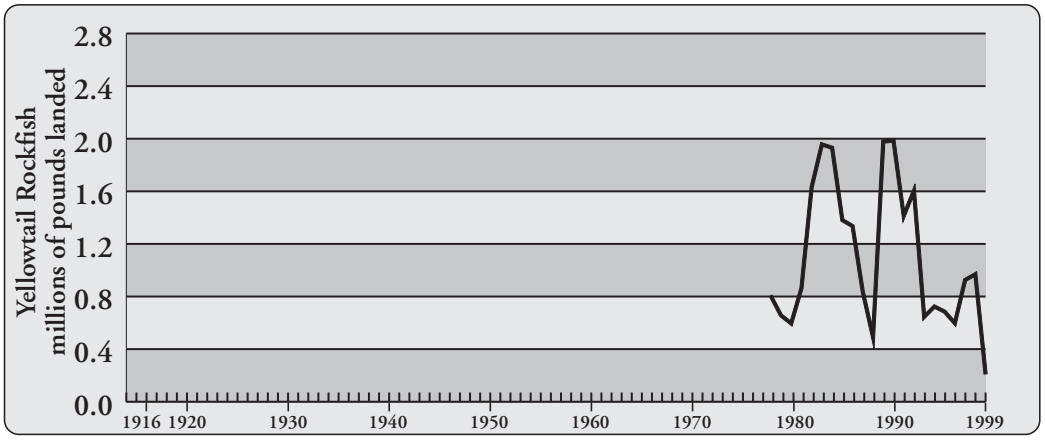
Yellowtail Rockfish, *Sebastes flavidus*
Credit: J. Mello DFG

Status of Biological Knowledge

Yellowtail rockfish are found from Kodiak Island, Alaska to San Diego, although they are rare south of Point Conception. They are wide-ranging and are reported to occur from the surface to 1,800 feet and are known to form large schools, either alone or in association with other rockfish, including widow rockfish, canary rockfish, redstripe rockfish, and silvergray rockfish. They are primarily distributed over deep reefs on the continental shelf, especially near the shelf break, where they feed on krill and other micronekton.

There is some controversy about the existence of distinct stocks of this species. Some allozyme and parasitological evidence supports the view that multiple stocks exist, whereas other genetic data indicate one single coastal stock. Within U.S. waters, the species is currently managed as two stocks, with a separation at Cape Mendocino, although that boundary is purely based on human considerations, including differences in fishing patterns and data availability.

Like many other species of rockfish, yellowtail are long-lived. The age distribution of fish sampled in commercial fisheries off Oregon and Washington can span six decades, with the oldest known specimen a 64-year-old male. They typically reach their maximum size at about 15 years of age and the largest recorded specimen was a 28-inch female. Females begin to mature at 10 to 15 inches, with half reaching maturity by a size of 15 to 18 inches; males do not grow quite as large as females.



Commercial Landings 1916-1999, Yellowtail Rockfish
Data Source: CalCom, a cooperative survey with input from Pacific Fisheries Information Network (PacFin), National Marine Fishery Service (NMFS), and California Department of Fish and Game (DFG). Data are derived from DFG commercial landing receipts with expansions based on port samples collected by PacFin samplers. Expansion data not available for years prior to 1978.

Status of the Population

A recent assessment of the northern portion of the population indicates that unlike many of our rockfish stocks, the resource is very healthy. Based on a wide variety of information collected over the last 30 years or more, population abundance is currently believed to be about 77,000 tons, down to 60 percent of the virgin population size, but still well above the target population size, which is 40 percent of the unexploited level.

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National Marine Fisheries Service

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